In the claims:

Please add claims 35-37, as attached.

1. (Previously Presented) A heat sink designed as a flat heat pipe comprising a body, at least one interior space formed in the body and closed toward the outside with at least one vapor channel, with at least one fluid channel is connected to the at least one vapor channel and has a porous or capillary structure, and with several spatially separated posts extending through the interior and between two opposing walls delimiting the interior, whereby the posts and the opposing walls are made of a material with high heat conductivity, wherein each post is connected at both ends directly with one of the opposing walls.

2. (Previously Presented) The heat sink as claimed in claim 1, wherein the capillary or porous structure comprises particles connected with each other by bonding or sintering and/or with an adjacent surface in such a way that capillary flow paths are formed between the particles.

3. (Previously Presented) A heat sink designed as a heat pipe with at least one interior space formed in the body of the heat sink and closed toward the outside with at least one vapor channel, with at least fluid channel connected to the vapor channel and has a porous or capillary structure, wherein the capillary or porous structure comprises particles made of ceramic, connected with each other and/or with an adjacent surface by means of bonding or sintering, so as to form capillary flow paths between the particles.

4. (Previously Presented) The heat sink as claimed in claim 3, further comprising several spatially separated posts extending through the interior and between two opposing walls

delimiting the interior, whereby the posts and the opposing walls are all made of a material with high heat conductivity, and whereby each post is connected at both ends directly with one of the opposing walls.

5. (Previously Presented) The heat sink as claimed in claim 3, wherein particles are connected with each other by means of metal stays, for example copper stays (9), e.g. by means of copper stays produced through DCB bonding.

6. (Previously Presented) A heat sink comprising a flat heat pipe having a body with at least one interior space formed in the body and closed toward the outside with at least one vapor channel, with at least one fluid channel connected to the vapor channel and having a porous or capillary structure, wherein the capillary or porous structure comprising at least partially of a loose mass of particles in a space separated from the fluid area by an intermediate wall.

7. (Previously Presented) A heat sink as claimed in claim 6, wherein the intermediate wall has a plurality of openings.

8. (Previously Presented) A heat sink as claimed in claim 6, wherein the particles are such made of metal and/or ceramic.

9. (Previously Presented) A heat sink as claimed in claim 3, wherein the capillary structure is formed from at least one ply or layer, which is applied at least on part of

the inner surface of the wall sections delimiting the at least one interior space, and enclosing the posts at their respective connecting areas with these wall sections.

10. (Previously Presented) A heat sink as claimed in claim 9 wherein the layer forming the capillary structure is applied at least on a partial area of the surface of the posts.

11. (Previously Presented) A heat sink as claimed in claim 3 wherein the posts have a diameter that is considerably smaller in every direction of the diameter than the dimension of the interior in this direction of the diameter.

12. (Previously Presented) A heat sink as claimed in claim 3 wherein between the vapor space and the capillary structure forming the at least one fluid channel there is an intermediate wall.

13. (Previously Presented) A heat sink as claimed in claim 12, wherein the intermediate wall is provided with a plurality of openings or is made of a perforated material.

14. (Previously Presented) A heat sink as claimed in claim 12, wherein the at least one intermediate wall is parallel to the first wall sections.

15. (Previously Presented) A heat sink as claimed in claim 12, wherein the intermediate wall is formed from a pipe section preferably from a pipe section pressed flat or formed in an oval profile.

16. (Previously Presented) A heat sink as claimed in claim 9, wherein at least two capillary structures forming a fluid channel and/or at least two vapor channels are provided for.

17. (Previously Presented) A heat sink as claimed in claim 6, wherein first and second wall sections are each formed from plate-shaped walls, which together with a peripheral wall delimit the interior of the heat sink.

18. (Previously Presented) A heat sink as claimed in claim 17, wherein the first wall sections are formed from areas of a pipe section preferably pressed flat delimiting the interior of the heat sink.

19. (Previously Presented) A heat sink as claimed in claim 4, wherein the heat sink comprises several plates located one above the other in the manner of a stack and connected with each other at the surfaces, of which plates in the inside of the stack are provided with openings so that these openings form a channel structure through the interior of the heat sink and that the structured plates are supplemented by areas outside of the openings to the continuous posts, and that the material forming the capillary structure is inserted in at least one area of the channel structure.

20. (Previously Presented) A heat sink as claimed in claim 19, wherein the interior is formed by at least one depression or recess in one of the plates forming the heat sink.

21. (Previously Presented) A heat sink as claimed in claim 6, wherein the particles forming the capillary layer or structure are provided in one layer on the respective surface of the walls delimiting the interior.

22. (Previously Presented) A heat sink as claimed in claim 6, wherein the particles are connected directly with the respective surface, for example by means of DCB bonding.

23. (Previously Presented) A heat sink as claimed in claim 6, wherein the body of the heat sink is formed from a pipe section that is closed at both ends.

24. (Withdrawn) A process for manufacturing a heat sink in the form of a heat pipe with at least one vapor channel formed in a closed interior and with at least one fluid channel with a porous or capillary structure, wherein the porous or capillary structure is produced by insertion of a mass of particles made of a heat-resistant material, for example ceramic particles and by subsequent DCB bonding upon heating to a bond temperature between 1065 and 1085°C.

25. (Withdrawn) A process as claimed in claim 24, wherein the porous or capillary structure is produced by insertion of a mixture or mass of particles made of the heat-resistant material and pulverized copper oxide or oxidized copper particles and by subsequent DCB bonding.

26. (Withdrawn) A process as claimed in claim 25, wherein the mass or mixture additionally contains copper particles.

27. (Withdrawn) A process as claimed in claim 25, wherein, after bonding and cooling, the excess portion of the mass or mixture is removed.

28. (Withdrawn) A process as claimed in claim 24, wherein the capillary or porous structure or layer is produced before sealing the interior of the heat sink.

29. (Withdrawn) A process as claimed in claim 25, wherein the mass or mixture forming the capillary structure is inserted in the interior through at least one opening and is distributed there before bonding by shaking, vibration or turning.

30. (Withdrawn) A process as claimed in claim 24, wherein during the manufacture of the porous or capillary structure at least one part of the interior of the heat sink forming a vapor area is filled or kept free by means of a support medium before bonding of the particles forming the porous or capillary structure.

31. (Withdrawn) A process as claimed in claim 30, wherein the support medium is removed after bonding or after manufacturing the porous or capillary structure.

32. (Withdrawn) A process as claimed in claim 30, wherein the support medium remains in the heat sink.

33. (Withdrawn) A process as claimed in claim 30, wherein the support medium is a particle-like medium.

34. (Withdrawn) A process as claimed in claim 30, wherein the support medium is formed from a wall.

35. (New) A heat sink designed as heat pipe comprising a heat pipe body, at least one interior space in the heat pipe body, said at least one interior space being closed toward the outside by walls und forming at least one vapor channel and at least one fluid channel connected to the at least one vapor channel and having a porous or capillary structure, and several spatially separated posts extending through the interior and between two opposing walls delimiting the interior space, whereby the posts and the walls are made of a metal with high heat conductivity, wherein each post is connected at both ends directly with one of the two opposing walls by means of DCB bonding, and wherein the capillary or porous structure comprises particles of ceramic material connected with each other and with an inner surface of the interior space of the heat pipe body such that the capillary or porous flow paths are formed between the particles.

36. (New) The heat sink as claimed in claim 35, wherein the particles of ceramic material are connected with each other and with the inner surface of the interior space of the heat pipe body by bonding or sintering.

37. (New) The heat sink as claimed in claim 35, wherein the heat pipe body is a flat body.